

Apartment Area (Apt. 101)

The location of the unit and its orientation, with a view  
direction (see also the projection (Fig. 1). The unit is a  
delimited unit, generally rectangular, with a flat  
ceiling, especially at the top of the unit, and  
no many other supplies than the unit, and no  
poor.  
There are 4 diagrams and 1 drawing.

Area 2/2

**AUTHOR:** Grinin, A. 1970-01-01

**TITLE:** Acoustic System (Loudspeaker) for the *U.S.S.R.*

**PERIODICAL:** Radiotekhnika, No. 11, pp. 106-110 (1970)

**ABSTRACT:** The author gives a brief review of the present state of the acoustic units of sound-reproducing equipment, and then a more detailed description of a system of acoustics the results of the use of the simplest and most widely used systems (Fig. 1) and also the two-dimensional sound field of a speaker in the plane of the cone of the cylinder, as the b-*...* in the plane of the cone. The level of the sound pressure, and in the loudspeakers can be made to be three times greater than that of nominal power. A good 8-10 dB sound effect can be achieved by placing the radiating horns, and the extension cone speakers, working on a cone and horn, in a distance of 1.5-2 meters of the walls forming the sound field. Even more effective is a sound effect, which is a result of a nonlinear propagation of sound waves in the sound field, which is a result of the sound pressure in the sound field in the plane of the cone (Figures 3 and 4). The sound pressure in the sound field in the plane of the cone is the loudspeaker, in the plane of the cone, is a result of the sound pressure in the sound field in the plane of the cone.

GRINILEV

AUTHOR: Grinilev, S.

25 58-4-28/42

TITLE: For Relay-Circuits (Dlya releynykh skhem)

PERIODICAL: Nauka i Zhizn', 1958, Nr 4, page 70 (USSR)

ABSTRACT: The model of a machine for rapid and accurate analyses of the performance of relay-contact circuits, which are already mounted or being planned, is shown at the Brussels International Exhibition. The machine was designed by the Institut avtomatiki i telemekhaniki Akademii nauk SSSR (Institute of Automation and Telemechanics of the USSR Academy of Sciences). Information includes a description of this device.

AVAILABLE: Library of Congress

Card 1/1 1. Electric relays-Performance 2. Electric relays-Analysis

GRINILEV, Lev Solomonovich; KIPNIS, Solomon Yefimovich; GUROV, S.,  
red.; PAVLOVA, S., tekhn. red.

[Wonderful lines] Chudesnye linii. Moskva, Mosk. rabochii,  
1961. 93 p. (MIRA 15:3)  
(Assembly line methods) (Automation)

On Cybernetics

00/506

Dispatcher Control of the Power-System Load

(3)

• Robot Locomotive Engineer

(3)

AVAILABLE: Library of Congress

Card 4/4

VR/gmp  
2-4/60

On Cybernetics	10/1986	
Reading		17
• Translating		17
"Comprehension"		21
Planning Strategy		22
Control of Production Processes		24
Automatic Shop for the Production of Bearings		25
Robot Steelworker		25
Robot Control of a Rolling Mill		26
In Chemistry		27
In Machine Building		28
Card 3/4		

On Cybernetics

1001/3026

TABLE OF CONTENTS:

Ampère's "Section 83"	3
The Other Side	4
Windows on the World	4
Repository of Experience	6
Trust, but Verify	7
Who Settles the Question?	9
There is a Limit, but...	11
A Machine Can...	12
Experience of Mankind	13
Is a Man Needed for This?	15
Card 2/4	



GRINILEV, L., inzh.

Pick-ups as "sense organs" of automats. Nauka i zhizn'  
29 no.10:73 0 '62. (MIRA 15:12)  
(Engineering instruments)

GRINILEV, L., inzh.

Pickups are the "sense organs" of automats. Nauka i zhizn' 29  
no.9:49 S '62. (MIRA 15:10)

(Electric measurements)

GRINILEV, L., inzh.

Pickups as the "sense organs" of automatic machines. Nauka i  
zhizn' 29 no.6:81-82 Je '62. (MIRA 15:10)  
(Electric apparatus and appliances)  
(Automation)

GRINILEV, L., inzh.

"Art of turning and twisting with double transmission." Nauka  
i zhizn' 29 no.2:102-103 F '62. (MIRA 15:3)  
(Perpetual motion)

GRINILEV, L.

Made in France. Nauka i zhizn' 27 no.5:68-69 My '66.

(MIRA 13:6)

(France--Scientific instruments)

(Moscow--Exhibitions)

67654  
SOV/25-60-2-25/42

A Pocket Atomic Generator

collector. The lead out of the positive electrode is obtained by a platinum soldering through a "pinch" - the negative through the ring of the envelope. Inside the envelope, a vacuum of  $10^{-6}$  mm Hg is created. The source with the emitter gives a voltage up to 24 kv. 4

Card 2/2

67654

21(9) 21.5100

SOV/25-60-2-25/42

AUTHOR: Grinilev, L.

TITLE: A Pocket Atomic Generator

PERIODICAL: Nauka i zhizn', 1960, Nr 2, p 66 (USSR)

ABSTRACT: Recently, Soviet scientists have developed a new type high-voltage atomic source, suitable for being used in a portable apparatus and for feeding various electronic devices. With its aid, low capacities (depending on the speed of charge accumulation) can be determined and high resistances up to  $1,5 \cdot 10^{13}$  Ohm can be measured. This miniature atom generator is a balloon, obtained by welding two glass cylinders to a metal ring separating them. Inside the ring, a collector of beta-particles is fastened by spring catches. The outer cylinder of the collector is made of nickel, the inner one of aluminum. A seamless nickel tube with a thin layer of an active preparation uniformly applied inside is used as a beta-particle source. The tube is placed coaxially with the

Card 1/2

23(5)

SCV/25-59-3-25/46

AUTHOR: Grinilev, L.

TITLE: A Developer Made of Phenidone (Proyavitel' iz fenidona)

PERIODICAL: Nauka i zhizn', 1959, Nr 5, pp 67 - 68 (USSR)

ABSTRACT: The author describes the advantages of a fine-grained developer containing phenidone, which has recently been produced abroad.

Card 1/1

397/25-92--11/42

### Miraculous Crystals

spectacles etc. The semiconductor super-heterodyne receiver "Sputnik", which is intended for the reception of middle wave range programs, is of special interest. This receiver is equipped with 9 semiconductors which can be fed for 25 hours from the battery of a pocket lamp. A miniature power station, which supplies energy, is equipped with semiconductor generators - small silicon disks, which transform sunrays or the light of a bulb into electric current. There are 12 photos.

Card 2/2

9(4)

307/05-57-1-1B/40

AUTHOR: Grinilev, L.

TITLE: Miraculous Crystals (Chudotvornyye kristally)

PERIODICAL: Nauka i zhizn', 1959, No. 2, p. 54-55 (USSR)

ABSTRACT: This article contains short descriptions and photos of some exhibits shown at the exhibition "Semiconductors and their Applications in the National Economy" in the Politekhnikheskiy Muzey (Polytechnical Museum) in Moscow. The concerned items are a double-tube semiconductor sorter intended for the sorting of metal products according to surface criteria; an electro-thermometer with semiconductor probe for medical purposes; a temperature signalization device; a semiconductor device controlling the tension of electric motors; a semiconductor block element of an "electronic brain"; a four-cascade sound intensifier installed in the temples of a pair of

Card 1/2

GRINILEV, L.

Extreme regulators. Nauka i zhizn' 25 no. 6:66-69 Je '59.

(Governors(Machinery))

(MIRA 11:8)

AUTHOR: Grudnev, L. Engineer CIV-44007-21/1  
 TITLE: 1,000 Times Thinner than a Hair (V 1,000 raz ton she vol'no)  
 PERIODICAL: Nauka i zhizn', 1958, Nr 9, p 69 (USSR)

ABSTRACT: The Elektrofizicheskaya laboratoriya Instituta metallurgii AN SSSR (The Electro-Physics Laboratory of the Metallurgical Institute of the AS USSR) constructed a device which can produce an endless wire, 1 micron thick, covered with glass. The device was invented by V.N. Parkhachev under the supervision of Professor A.V. Ulitovskiy. A glass tube, containing the metal from which the wire will be made, is placed in an inductor connected with a high frequency generator. The metal (melted in the high frequency field) softens the bottom of the glass tube and, together with this glass coating, is twisted around a rotating reel. One drop of metal can give about 2 km of 1-micron-thick wire.

1. Wire--Manufacture    2. Wire--Coatings    3. Glass coatings  
 --Applications

Card 1/

GRINILEV, L

AUTHOR: Grinilev, L.

25-2-17/43

TITLE: A Flat Television Receiver (Ploskiy televizor)

PERIODICAL: Nauka i Zhizn', 1958, # 2, p 48 (USSR)

ABSTRACT: In this article the author gives a detailed description of a new flat television receiver designed independently in two American research laboratories. The main problem consisted in reducing the length of the television tubes while maintaining the size of the screen.  
There is one illustration.

AVAILABLE: Library of Congress

Card 1/1

GRINILEV, L.

AUTHOR: Grinilev, L., Engineer

25-12-25/39

TITLE: Aerogeophysical Station (Aerogeofizicheskaya stantsiya)

PERIODICAL: Nauka i Zhizn', 1957, # 12, pp 47 (USSR)

ABSTRACT: The most perfect device for locating mineral deposits from airplanes is the aerogeophysical station "ACF-38". This device was constructed for prospecting minerals found in radioactive, and magnetic rocks. The fundamental difference between the "ACF-38" and devices formerly used is that its gamma transducer is not equipped with gas-filled Geiger-Mueller counters, but scintillation counters. By this, sensibility was increased from 2.5 to 3 times, and has eliminated almost completely the influence of cosmic radiation upon the operation of the station. The high sensitivity of the gamma channels enabled to apply the so-called discriminating arrangement which distinguishes between uranium and thorium ores. The device weighs 160 kg, and consists of a magnetic transducer, installed in a gondola, which is mounted in the fuselage or wing, a gamma transducer and a panel registering the entire gamma field, the indications of the sound-ranging altimeter indications, the magnetometer and the gamma channel after discrimination.

Card 1/1

AVAILABLE: Library of Congress

*GRINILEV, L.*  
AUTHOR: Grinilev, L. 25-10-20/41

TITLE: Electronic Microscope (Elektronnyy mikroskop)

PERIODICAL: Nauka i zhizn', 1957, # 10, p 49 (USSR)

ABSTRACT: The East German enterprise (WF" produced a new small electronic microscope "KEM-1" which gives a 30,000 fold enlargement, its resolving power equals about 5 millimicrons. The microscope's stand has the form of a desk, inside of which are installed: a high-voltage unit, a water-cooled oil diffusion vacuum pump, voltage and lens current stabilizers. The plate voltage can amount to 40, 50 or 60 kilovolt. The deflection system consists of three electro-magnetic lenses: the objective, condenser and projection lens. The screen of the microscope represents a luminescent layer on a glass basis. A photographing device is installed between the production lens and the screen.

There is one photograph.

AVAILABLE: Library of Congress

Card 1/1

AUTHOR:

Grinilev, L.

25-9-27/40

TITLE:

Spectrum Devices (Spektral'nyye pribory)

PERIODICAL:

Nauka i Zhizn', 1957, # 9, p 52-53 (USSR)

ABSTRACT:

The author describes a spectrograph, "ДТC-9" exhibited at the All-Union Industrial Exhibition, whose diffraction grating is concave, intended for conducting qualitative and quantitative analyses of metals, alloys, ores and minerals. The spectrograph is very useful for research laboratories, but requires photoprocessing of the spectrum pictures obtained. For industrial purposes, where hundreds of qualitative determinations have to be obtained within the shortest time, the use of the photoelectric device "ФЭC-1" is recommended, which is also shown at the exhibition. Owing to the application of the photoelectric method of measuring the intensity of the spectrum lines and full automation of the analysis process, the determination of an element's concentration is made possible within 2 or 3 minutes.

There are 2 figures.

AVAILABLE:

Library of Congress

Card 1/1

YEVLASHENKO, Fedor Vasil'yevich; GRINIKH, A.K., inzh., retsenzent;  
KAPLAN, Ye.D., inzh., retsenzent; NOVIKAS, M.N., inzh.,  
red.; BOBROVA, Ye.N., tekhn. red.

[Safety engineering in signaling and communications] Tekhnika  
bezopasnosti v khoziaistve signalizatsii i sviazi. Moskva,  
Tranzheldorizdat, 1963. 143 p. (MIRA 16:4)  
(Railroads--Signaling)  
(Electric lines--Overhead)

VASIL'YEV, A.; GRINIK, G.; ALEKSANDROV, N.

Not in seven years but in four and a half. Prom.koop. 14 no.4:  
13-18 Ap '60. (MIRA 13:6)

1. Predsedatel' pravleniya promyslovoy arteli "Druzhba", g. Kanash  
Chuvashskoy ASSR (for Vasil'yev). 2. Tekhnoruk promyslovoy arteli  
"Druzhba" g. Kanash, Chuvashskoy ASSR (for Grinik). 3. Sekretar'  
partiyoy organizatsii promyslovoy arteli "Druzhba," g. Kanash,  
Chuvashskoy ASSR (for Aleksandrov).  
(Kanish--Manufactures)

GRINIENE, E.

On clinical forms of endemic goiter in the city of Siauliai.  
Sveik.apsaug. 9 no.1:16-23 Ja'64.

1. Kauno Valst. medicinos instituto vidaus ligu propedeutikos  
katedra ir Resp. Siauliu ligonine.

\*

GRINGOROVICH, V.K.  
A

9-196. A Basic Method of Determination and Calculation of Hardness. (In Russian) V. K. Gringorovich. *Zavodskaya Laboratoriya (Factory Laboratory)*, v. 15, Apr. 1949, p. 457-460.

Critically analyzes existing methods for hardness determination. The methods used for calculation of hardness from the test readings sometimes result in erroneous interpretations. A new method is proposed which would standardize such determinations.

AVR 55 A METALLOGRAPHICAL LITERATURE CLASSIFICATION

CON. 1961  
METALLOGRAPHICAL LITERATURE CLASSIFICATION

GRINGOL'TS, L.A.; KOZYREV, S.M.; SIROTTA, B.L.; FILINA, M.D.; YURKEVICH,  
V.S.; GUREVICH, Ya.D., redaktor; BEKMAN, Yu.K., vedushchiy  
redaktor; POLOSINA, A.S., tekhnicheskij redaktor

[Manual of wages in the petroleum industry] Spravochnik po  
zarabotnoi plate v neftianoi promyshlennosti. Izd. 2-oe, perer.  
i dop. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-  
toplivnoi lit-ry, 1956. 342 p. (MIRA 9:10)  
(Wages) (Petroleum industry)

GRINGOL'TS, I., kand.yurid.nauk

"Invention and innovation in the U.S.S.R." Reviewed by I.  
Gringol'ts. Izobr. i rats. no.8:37 Ag '62. (MIRA 15:9)  
(Inventions)

GRINGOL'TS, I., kand.yurid.nauk

Two chapters of the law. Izobr.i rats. no.4:32 Ap '62.  
(MIRA 15:4)

(Patent laws and legislation)

LUK'YANOV, Ye.K.; L'VOV, A.M.; SAMORUKOV, I.A.; GRINGOF, R.N.

New pickup for medical apparatus. Med.prom. 13 no.11:47-52 N '59.  
(MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskogo  
instrumentariya i oborudovaniya, SKTB Biofizpribor.  
(MEDICAL INSTRUMENTS AND APPARATUS)

GRINGOF, Erika Khrisoforovna

[Calf barn for 146 head with a section for newborns, constructed of precast reinforced concrete elements, with a loft. Model plan No. 219] Teliatnik na 146 golov s pomeshcheniem dlia molodniaka iz sbornykh zhelezobetonnykh konstruktsii, izgotovliaemykh v kolkhozakh s cherdachnym pomeshcheniem. Tipovoi proekt No.219. Kiev, Izdatel'skii otdel, 1956. 14 p., 70 plans. (MLRA 9:10)

1. Ukrainskiy gosudarstvennyy institut proyektirovaniya sel'skogo i kolkhoznogo stroitel'stva.  
(Barns)

GRINGOL'TS, I., yurist; MAMIOFA, I., yurist

From the devil. Izobr.i rats. no.12:29 D '62.  
(Technological innovations)

(MIRA 15:12)

GRINGOL'TS, I., kand.yurid.nauk

Supreme Court of the U.S.S.R. interprets. Izobr. i rats. no.6:32-34  
Je '61. (MIRA 14:6)

(Technological innovations) (Patent laws and legislation)

L'VOV, A.M.; GRINGOF, R.N.; GEYVINA, M.V.

Electron stethoscope. Med. prom. 15 no.9:53-56 S '61. (MIRA 14:9)

1. Samostoyatel'noye konstruktorskoye tekhnologicheskoye byuro  
"Biofizpribor". (AUSCULTATION--EQUIPMENT AND SUPPLIES)

SAMGRUKOV, I.A.; L'VOV, A.M.; GRINGOF, R.N.; LUK'YANOV, Ye.K.

System of lineal compression for the measurement of blood pressure. Med. prom. 15 no.7:30-35 J1 '61. (MIRA 15:6)

1. Samostoyatel'noye konstruktorskoye tekhnologicheskoye byuro "Biofizpribor" i Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskih instrumentov i oborudovaniya.  
(BLOOD PRESSURE)

L'VOV, A.M.; GRINGOF, R.N.; GEYVINA, M.V.

Phonocardiograph FKG-01. Med.prom. 14 no.11:45-50 N '60. (MIRA 13:11)

1. Samostoyatel'noye konstruktorskoye tekhnologicheskoye biuro  
"Biofizpribor."

(HEART--SOUNDS)

(MEDICAL INSTRUMENTS AND APPARATUS)

MEMORANDUM FOR THE DIRECTOR

Subject: [Illegible text]

[Illegible text]

[Illegible text]

[Illegible text]

[Illegible signature]



ILLEGIBLE

GRINGOF, I.G.

Burning of ephemeral plants in the Kyzylkum. Uzb. biol. zhur.  
8 no.2:34-37 '64. (MIRA 17:9)

1. Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskii institut.

GRINGOF, I.G.

Dependence of the growth rate of roof bromegrass on meteorological conditions. Trudy Sred.-Az. nauch.-issl. gidrometeor. inst. (MIRA 16:5)  
no.12:43-54 '62.  
(Soviet Central Asia--Bromegrass)  
(Crops and climate)

GRINGOF, I.G.; ALIMZHANOV, A.G.

Methods for field estimation of the yield of the sedge *Carex physodes* M.B. in pastures. Bot. zhur. 47 no.8:1170-1176 Ag '62.  
(MIRA 15:10)

1. Sredne-Aziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut i Institut botaniki AN Uzbekskoy SSR, Tashkent.  
(Soviet Central Asia--Sedges)  
(Pasture research)

GRINGOP, I. S.

Characteristics of the growth rate of systems and their initial phases. Nauka, Uraly Tash. 68 no. 204:62-74 (1979). (1984 1:19)

GRINGERG, Ya.Kh.; MEDVEDEVA, Z.S.; YELISEYEV, A.A.; ZHURAV, V.I.

Preparation of single boron phosphide (BP) crystals from the  
gaseous phase. Dokl. AN SSSR 160 no.2:337-338 (Jan 1964).

(Chem. Abstr.)

1. Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova  
AN SSSR. Submitted July 7, 1964.

GRINGLAZ, Ya.A., inzh.

Standard for the piston plunger pair of fuel pumps for  
stationary, marine, and locomotive diesel engines;  
State Standard 7528-55. Energomashinostroenie 7 no.11 41  
N 121. (MIRA 24 11)  
(Diesel engines - Fuel systems)  
(Piston - Standard)

GRINGAUZ, V.A., uchitel' fiziki

"Newton's laws," a new educational film. Fiz. v shkole 22  
no.2:45-46 Mr-Ap '62. (MIRA 15:11)

1. 101-ya shkola g. Moskvyy.  
(Motion pictures in education)  
(Physics--Study and teaching)

IVANOKOVA, F.I., GRINGAUZ, S.T.

Deep ulcerative pyoderma. Sbor.nauch.rab.Bel.nauch.-issl. kozhno-  
ven.inst. 4:344-346 '54 (MIRA 11:7)  
(SKIN--ULCERS)

.KONDRAT'YEV, V.A.; DUBROVINSKIY, V.Ya.; DOBRINSKIAYA, A.K.;  
ROZENBAUM, P.S.; TAVROV, Ya.M.; BOGDANOVSKIY, V.F.;  
GRINGAUZ, S., red.; YAKOVLEVA, Ye., tekhn. red.

[Named after Vladimir Il'ich]Imeni Vladimira Il'icha. Mo-  
skva, Mosk. rabochii, 1962. 510 p. (MIRA 16:4)  
(Moscow--Electric machinery industry)

FRANTSEV, Yu.P., rektor, otv. red.; IVAN'KOVICH, N.F., red.; VLADIMIRTSEV, V.S., red.; STEPANYAN, TS.A., prof., red.; CHANGLI, I.I., starshiy nauchnyy sotr., kand. ekonom. nauk, red.; YESELEV, N.Kh., red.; GUSEV, K.V., red.; BONAREV, N., red.; GRINGAUZ, S., red.; SPITSYNA, A., red.; KUZNETSOVA, A., tekhn. red.

[Standard-bearers of communist labor] Znamenostay kommunisticheskogo truda. Moskva, Moskovskii rabochii, 1961. 322 p.

(MIRA 14:12)

1. Akademiya obshchestvennykh nauk pri Tsentral'nom komitete Kommunisticheskoy partii Sovetskogo Soyuz a Chlen-korrespondent AN SSSR (for Frantsev).
2. Zaveduyushchiy sektorom Instituta filosofii AN SSSR (for Stepanyan).
3. Institut filosofii AN SSSR (for Changli).  
(Labor and laboring classes)

SHIMANSKIY, Vsevolod Pavlovich; GRINGAUZ, S., red.; SHELK, M., tekhn.  
red.

[We build our future today] Budushchee rozhdaetsia segodnia. Moskva, Mosk. rabochii, 1961. 82 p. (MIRA 14:10)  
(Moscow--Efficiency, Industrial)  
(Communist Party of the Soviet Union--Party work)

GERMATSKIY, Anatoliy Pavlovich; GRINGAUZ, S., red.; PAVLOVA, S., tekhn.  
red.

[Conserve labor and time] Berech' trud i vremia. Moskva, Mosk.  
rabochii, 1960. 39 p. (MIRA 15:1)

1. Glavnyy inzhener Moskovskogo tresta ovoshche-kartofelevodche-  
skikh sovkhovov. (for Germatskiy).  
(Moscow Province--Agriculture)

VEKSLER, Yuliya Filippovna, kand.ekon.nauk; NIKIFOROV, Mikhail  
Artem'yevich, kand.ekon.nauk; GRINGAUZ, S., red.;  
PAVLOVA, S., tekhn.red.

[What the profitable operation of collective farms depends on]  
Ot chego zavisit dokhodnost' kolkhoza. Moskva, Mosk.rabochii,  
1961. 44 p. (MIRA 14:6)  
(Collective farms--Costs)

GLADKOV, Kirill Aleksandrovich; BABAT, G.I., prof., doktor tekhn.nauk,  
nauchnyy red.; GRINGAUZ, S., red.; YAKOVLEVA, Ye., tekhn.red.

[What is electronics?] Chto takoe radio-elektronika. Moskva,  
Mosk.rabochii, 1960. 355 p. (MIRA 13:5)  
(Electronics)

BUBLEYNIKOV, Feofan Dmitriyevich; GRINGAUZ, S., red.; YAKOVLEVA, Ye.,  
tekh.red.

[How man has subdued nature] Kak chelovek pokorial prirodu.  
Moskva, Mosk.rabochii, 1960. 170 p.

(MIRA 13:12)

(Industrial arts--History)

REMIZOV, Konstantin Sergeevich, kand.ekonom.nauk; LEONT'YEV, L.A., red.;  
GRINGAUZ, S., red.; YAKOVLEVA, Ye., tekhn.red.

[Organization of wages in the U.S.S.R.] Organizatsiia oplaty truda  
rabochikh v SSSR. Pod obshchei red. L.A.Leont'eva. Moskva, Mosk.  
rabochii, 1960. 46 p. (MIRA 13:8)

1. Chlen-korrespondent Akademii nauk SSSR (for Leont'yev).  
(Wages)

GRINGAUZ, S., red.; YAKOVLEVA, Ye., tekhn.red.

[Outlook for the expansion of industry, construction, and  
municipal economy of Moscow in 1959-1965] O perspektivakh  
razvitiia promyshlennosti stroitel'stva i gorodakogo kho-  
ziaistva Moskvy v 1959-1965 gg. Moskva, Moskovskii rabochii,  
1959. 47 p. (MIRA 12:8)

(Moscow--Economic conditions)

GRIN BAY, R. J.

ИЗДАНИЕ: В. В. Инженеры ЗАПАД, Л. Л. Инж., Инж. Инж., Л. Л. Инж.,  
Инж. Инж., Л. Л. Инж., Инж. Инж.

Научно-исследовательский институт по строительству Министерств и др.  
промышленности

НАУЧНО-ИССЛЕДОВАТЕЛЬСКИЙ ИНСТИТУТ ПО СТРОИТЕЛЬСТВУ МИНИСТЕРСТВ И ДР.  
ПРОМЫШЛЕННОСТИ И ДР. (С. 111)

SO: Collections of Annotations of Scientific Research on Construction, completed  
in 1950. Moscow, 1951

GRIGAUZ, R. I.

ZATSEPIN, K. S., Inzhener i GRIGAUZ, R. I., Inzhener  
Nauchno-issledovatel'skiy institut po stroitel'stvu Ministerstva neftyanoy  
promyshlennosti

IZUCHENIYE LENINGRADSKIKH I URAL'SKIKH DIATOMITOV

page 111.

SC: Collection of Annotations of Scientific Research Work on Construction,  
completed in 1950,  
Moscow, 1951

PROKOPCHUK, A.Ya.; FILIPCHIK, V.I.; YEREMENKO, S.A.; GORINGAU, N.Ya.

Problem of the permeability and protection of the skin. Dokl. AN  
BSSR 8 no.10:680-681 0 '64. (MIRA 18:3)

1. Institut fiziologii AN BSSR.

PROKOPCHUK, A.Ya. [Prakapchuk, A.IA.]; SOSNOVSKIY, A.T. [Sasnouski, A.T.];  
GRINGAUZ, M.Ya.; POPOVICH, A.D. [Papovich, A.D.]; SOSNOVSKIY, G.A.  
[Sasnouski, H.A.]; SMOL'SKIY, P.F. [Smol'ski, P.F.]

Radioactive cerium ( $Ce^{144}$ ), cesium ( $Cs^{137}$ ), promethium ( $Pm^{147}$ )  
and their therapeutic effect. Vestsi AN BSSR. Ser. bial. nav.  
no.4:84-90 '62. (MIRA 17:8)

GRINGAUZ, M.Ya.; KUNTSEVICH, M.A.

Study of the permeability of the skin by means of radioactive isotopes.  
Report No.2. Sbor.nauch.rab.Bel.nauch.-issl.kozhno-ven.inst. 6:91-  
101 '59. (MIRA 13:11)

(SKIN)

(ISOTOPES--PHYSIOLOGICAL EFFECT)

GRINGAUZ, M.Ya.; KUNTSEVICH, M.A.

Study of the permeability of the skin by means of radioactive isotopes  
Report no.1. Sbor.nauch.rab.Bel.nauch.-issl.kozhno-ven.inst. 6:38-47  
'59. (MIRA 13:11)

(SKIN)

(ISOTOPES--PHYSIOLOGICAL EFFECT)

CHERNYAK, E.N.; GORBULEV, S.S.; GRINCAUZ, M.Ya.

Prophylaxis of congenital syphilis. *Zdrazh.Belor.* 5 no. 6:50-51  
Je '59. (MIRA 12:9)

1. Iz belorusskogo nauchno-issledovatel'skogo kozhno-venereologicheskogo instituta (direktor - akademik AN BSSR A.Ya.Prokopchuk).  
(SYPHILIS, CONGENITAL, HEREDITARY, AND INFANTILE)

GRINGAUZ, M.Ya.

A case of sarcoid. Sbor.nauch.rab.Bel.nauch.-issl.kozano-ven.inst.  
4:347-350 '54 (MIRA 11:7)  
(SKIN--TUMORS)

KARPOVICH, Ye.A., GRINGAU<sup>Z</sup>S, M.Ya.

Eradication of dermatomycosis in Postavy District, Molodechno  
Province. Sbor.nauch.rab.Bel.nauch.-issl.kozhno-ven.inst.  
4:320-323 '54 (MIRA 11:7)  
(POSTAVY DISTRICT--DERMATOMYCOSIS)

DYLO, P.V., CHERNYAK, B.N., BASHMAKOVA, S.M., ROMANOVSKAYA, N.Yu., KLADNITSKAYA,  
T.L., GRINGAUZ, M.Ya.

Some causes for the unsatisfactory decline in the incidence of  
gonorrhoea and ways in which they may be eliminated. Sbor.nauch.  
rab.Bel.nauch.-issl.kozhno-ven. inst. 4:309-314 '54 (MIRA 11:7)  
(GONORRHEA)

GUTMAN, M.

1947

USSR/Glass Industry  
Medicine - Apparatus

Mar 1947

"The Industrial Production of Medical Glass in 1947,"  
M. Kh. Gringauz, 4 pp

"Farmatsiya" No 3

Chiefly concerned with production figures and  
relative output of various plants.

1076

GRINGAUZ, M. A.

Cand Tech Sci - (diss) "Study of friction variators. Use of variators in mine machines." Moscow, 1961. 14 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Mining Inst imeni I. V. Stalin); 200 copies; free; (KL, 5-61 sup, 188)

GRINGAUZ, M.A.

Contact of a toroidal-spherical transmission during the displacement of the center of the curvature of a roller. Sbor. nauch.trud IBI no.8:67-75 '58. (MIRA 13:4)  
(Gearing)

GRINGAUZ M.A.

25(2) PHASE I BOOK EXPLOITATION SOV/2223

Konferentsiya po voprosam rascheta, konstruirovaniya i issledovaniya subchatykh peredach i peredach gibkoy svyazi Yu. Odessa, 1957

Raschet: konstruirovaniya i issledovaniya peredach; trudy konferentsii (tom) 2 (Design, Construction, and Analysis of Transmission); Transactions of a Conference on Problems in Design, Construction, and Analysis of Gears and Flexible Transmissions, Vol 2) [Odessa] Odesskiy politekh. in-t, 1958. 94 p. 3,500 copies printed.

Sponsoring Agencies: Odesskiy politekhnicheskii institut, and Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Odesskiye oblastnoye pravleniye.

Ed. I. P. Mikhaylov, Engineer, Tech. Ed.: A. R. Komissarenko; Editorial Board: L. S. Borovich, Candidate of Technical Sciences, M. S. Balayev, Engineer, M. D. Genkin, Candidate of Technical Sciences, L. I. Zolotarev, Candidate of Technical Sciences, V. P. Kozlov, Candidate of Technical Sciences, M. Kudryavtsev, Doctor of Technical Sciences, V. P. Mal'tsev, Candidate of Technical Sciences, M. S. Polotskiy, Candidate of Technical Sciences, and L. B. Enlich, Candidate of Technical Sciences.

PURPOSE: The book is intended for engineers and technicians working in the field of transmissions.

COVERAGE: This second volume contains articles on variable-speed drives, flexible shafts, rope drives, and design problems also presented in the first volume. No personalities are mentioned. References follow several of the articles.

TABLE OF CONTENTS:

Starost, I. A. Friction Generated From Elastic Belts on Cylindrical Surfaces  
Friction between belt and cylinder is analyzed from two points of view: 1) when the cylinder is fixed, and 2) when the cylinder is rotating and driving the belt.

Kogan-Volman, G. I. Problems of Terminology, Classification, and Standardization in the Field of Flexible Wireshaft Drives  
The author points out errors and recommends standardization similar to the existing German system.

Gorban, A. I. Investigation of a Gear-Chain Type Variable-Speed Drive (Self-Exciting Chain Drive) on Friction  
Tests on the function-line of this type of drive. Tests on the neckstocks of two lathes equipped with such drives are described. Conclusions and recommendations concerning the construction, design, and operation are presented.

Gringauz, M. A. Effect of Errors in Fabrication on Performance of Friction Drives  
The author discusses inaccuracies in the manufacture of friction which affect initial surface contact, cause nonuniformity in the operation of intermediate elements, and add to dynamic loading.

Card 5/6

GRINGAUZ, L.D.

Linemen are working as true Communists should. Vest. aviazii 20 no.9:  
28-29 S'60. (MIRA 13:10)

1. Starshiy inzhener L'vovskogo lineyno-tekhnicheskogo uzla.  
(Telecommunication--Employees)

GRINGAUZ, L.

Scientific and technical conference held in Lvov. Radiotekhnika  
16 no.10:80 0 1961. (MIRA 14:1961)  
(Electronics Congresses)

GRINGAUZ, L.D.

Experience achieved in planning an expansion of radio and telephone facilities provided to virgin land areas. Vest.sviazi 15 no.11:20-21 N'55.  
(MIRA 9:2)

1. Starshiy inzhener L'vovskoy direktsii radiotranslyatsionnoy seti.  
(Telephone) (Radio)

ACC NR: AP6034570

authors intend to obtain a more accurate evaluation of these side effects and of their influence on the validity of trap readings Presented by Academician A. L. Mints on 23 June 1966. Orig. art. has: 3 figures. [FSB: v. 2, no. 12]

SUB CODE: 03,20,22 / SUBM DATE: 14Ju166 / ORIG REF: 003 / OTH REF: 006

Card 7/7

ACC NR: AP6034570

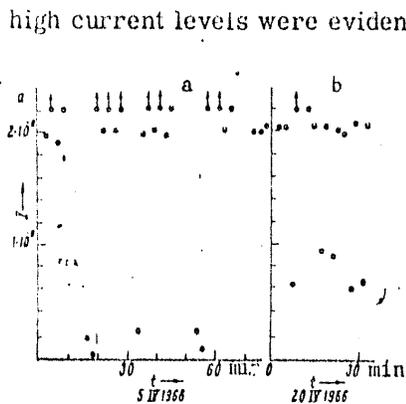


Fig. 3. Electron current

- A - Within the magnetosphere;
- B - outside the magnetosphere.

high current levels were evidently caused by photoelectrons from the satellite surface elements, since the levels dropped sharply when the satellite entered lunar night. As with the ion readings, the average electron flux was greater in free space ( $7.2 \times 10^{-10}$  amp) than in the magnetosphere ( $4.8 \times 10^{-10}$  amp). The corresponding densities, assuming energies on the order of 1 ev, were calculated at  $80/\text{cm}^3$  and  $60/\text{cm}^3$  respectively, and  $15-20/\text{cm}^3$  on the lunar night side. Whereas the electron trap readings may have been erroneously increased by photoelectrons, they may also have been

decreased due to interception of low-energy electrons by trap elements; laboratory tests have shown that diversion of the latter type at the 1-ev level can reduce true readings by a factor of 3 or 4. The

ACC NR: AP6034570

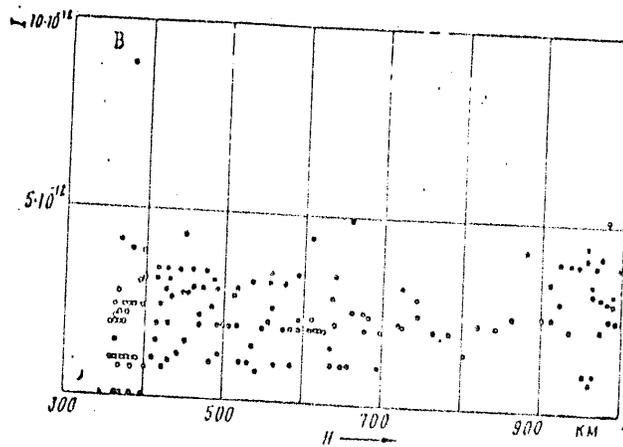
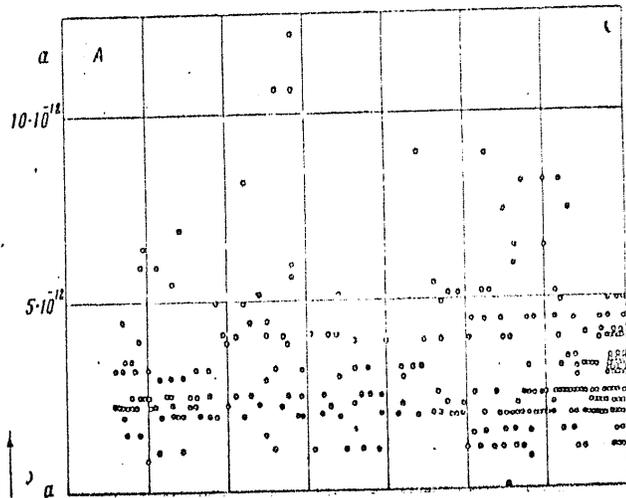


Fig. 2. Ion current

- A - Moon outside magnetosphere;
- B - Moon within magnetosphere.

ACC NR: A16034570



Card 4/7

ACC NR: AP6034570

Data from the ion trap have provided some idea of ion distribution in the vicinity of the Moon, but do not yield a breakdown between thermal and possibly higher energy ions. Calculated ion currents from some 450 readings are shown as a function of altitude in Fig. 2, for the general cases where the Moon was 1) within and 2) outside of the Earth's magnetosphere. A perceptible drop in ion current is seen when the Moon and its satellite entered the magnetosphere — on the average, from  $3.1 \times 10^{-12}$  amp to  $2.3 \times 10^{-12}$  amp. It also appears that there is no strong correlation of ion density with lunar altitude, nor with change in bias of the trap's external grid. If it is assumed that the ions encountered were thermal, i. e., that the satellite's orbital velocity greatly exceeded ion thermal velocities, then the calculations show a maximum ion density near the Moon of about  $100/\text{cm}^3$ . However, a varying component of ion flux was noted which could be correlated with solar wind flux; this fact, plus the nondependence of measured flux on altitude or grid biasing, suggest that at least part of the recorded ions were at energies well above thermal, in which case the ion density estimate would have to be revised downward.

The satellite's electron count, both in free space and in the magnetosphere, showed discrete high and low levels (Fig. 3). The

Card 3/7

ACC NR: AP6034570

wave gating. The ion trap had twin orthogonal elements and a common collector, as seen in Fig. 1(a); input flux was grid-modulated by a

square biasing wave, -3 to +7 v.

Output was detected by an amplifier tuned to this modulation frequency [unspecified]. To further overcome spurious local charge effects, the outermost grid was also modulated at 2-minute intervals by a square wave between 0 and -50 v. The electron trap outer grid was similarly modulated, but between 0 and +50 v. Interrogation of the traps was performed at 2-minute intervals. It was pointed out that rotation or tumbling of the satellite, with a period of about 40 seconds, caused "irregularity" in the measurements; this point was not elaborated on.

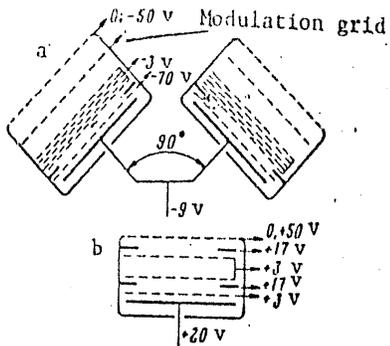


Fig. 1. Ion trap (a) and electron trap (b)

ACC NR: AP6034570

SOURCE CODE: UR/0020/66/170/006/1306/1309

AUTHOR: Gringauz, K. I.; Bezruklkh, V. V.; Khokhlov, M. Z.; Zastenker, G. N.;  
Remizov, A. P.; Musatov, L. S.

ORG: none

TITLE: Experimental results from observations of the lunar ionosphere  
performed by the first artificial lunar satellite

SOURCE: AN SSSR. Doklady, v. 170, no. 6, 1966, 1306-1309

TOPIC TAGS: lunar atmosphere, ionosphere, ion trap, electron trapping,  
electron flux, lunar satellite / Luna-10 lunar satellite

ABSTRACT:

In an accompanying review article on the Luna-10\*, a brief description is given of the two low-energy ion and electron traps that were carried by the satellite. K. I. Gringauz et al have subsequently published a preliminary analysis of the data from these traps, and have made some tentative deductions concerning the nature of the lunar ionosphere.

One difficulty in the trap measurements has been the generally low concentration of charged particles in the lunar ionosphere. Another is the uncertainty as to what effect the unknown surface charge status of the satellite might have on the registered particle levels. It was to counter the latter effect that traps for both thermal ions and thermal electrons were installed, each with a form of square-

Card 1/7

UDC: 537.591

ACC NR: A17007598

of the tail of the magnetosphere has been experimentally demonstrated increased from about 200,000 km (according to the data of IMP-1) to about 300,000 km. Measurement of the fluxes of positive ions with  $E_p > 50$  eV in most contacts made when the moon was known to be situated outside the tail of the earth's magnetosphere reveals that the magnitude of these fluxes in the lunar satellite orbit differs little from the typical magnitude of the fluxes of protons of the unperturbed solar wind  $\sim 1-5 \cdot 10^8 \text{ cm}^{-2} \cdot \text{sec}^{-1}$ . The instruments used did not make it possible to determine the energy spectrum of these fluxes. The simultaneous recording of positive currents of the almost diametrically opposite placed traps indicates that near the moon there is a perturbed region of solar plasma in which there are ion fluxes of comparable magnitude moving in different directions. The maximum possible concentration of charged particles in the lunar ionosphere was found to be  $100-300 \text{ cm}^{-3}$ .

Orig. art. has: 10 figures. [JPRS: 39,713]

Card 2/2

ACC NR: AF7007598

SOURCE CODE: UN/0295/66/004/006/037/0570

AUTHOR: Gringauz, K. I.; Bezrukikh, V. V.; Mokulov, G. N.

ORG: none

TITLE: Results of experiments for the study of plasma in circum-lunar space using charged particle traps on the first artificial lunar satellite

SOURCE: Kosmicheskiye issledovaniya, v. 4, no. 6, 1966, 851-870

TOPIC TAGS: lunar satellite, artificial satellite orbit / Luna-10 lunar satellite

SUB CODE: 22,03,20

## ABSTRACT:

Information is given on the plasma in the tail of the earth's magnetosphere at great distances from the earth and on the plasma in circumlunar space. The instruments used aboard "Luna-10" for obtaining these data are described (four charged particle traps were used). Much of the text is an analysis of the character of change of the collector currents of the traps at the time the moon passed through the tail of the earth's magnetosphere. Measurement data are used in estimating the upper limit of the possible concentration of thermal charged particles in the lunar ionosphere. The measurements indicate that between 5 and 8 April 1966 the satellite emerged from the tail of the earth's magnetosphere and then (with the approach of the May full moon) between 28 April and 2 May again entered the tail of the magnetosphere and between 5 and 7 May emerged from it. If this was the case the distance from the earth in the antisolar direction in which the existence

Card 1/2

UDC: 537.591

090215-41

L 04445-57

ACC NR: AP6018922

of the ionosphere. In addition, the unreliability of the results of Al'pert et al. is caused also by an inaccurate method used during the processing of experimental data. [Publishing Editor's note: no further articles concerning this discussion will be published] .Orig. art. has: 9 formulas and 4 tables. 0

SUB CODE: 08/      SUBM DATE: 27Oct65/      ORIG REF: 023/      OTH REF: 015

Card 2/2 *ask*

L 0445-67 EWT(1)/FCC GW

ACC NR: AP6018922

SOURCE CODE: UR/0203/66/006/003/0568/0580

AUTHOR: Gringauz, K. I.; Kravtsov, Yu. A.; Rudakov, V. A.; Rytov, S. M. 63

ORG: Radioengineering Institute, AN SSSR (Radiotekhnichesky Institut AN SSSR) B

TITLE: Once more about the feasibility of local electron concentration<sup>V</sup> determination by the dispersion method using artificial Earth satellites and about the new ionization maxima in the ionosphere

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 3, 1966, 568-580

TOPIC TAGS: ionospheric electron density, ionospheric physics, ionospheric disturbance, ionospheric radio wave, satellite data analysis, geophysics rocket

ABSTRACT: This is the continuation of an earlier debate between the present authors and Ya. L. Al'pert et al. (see, e.g., Geomagn. i aeronomiya, 1 1965, 5, No 4, 766) concerning the feasibility of local electron concentration determination by the dispersion method using artificial Earth's satellites. The authors show once more that the electron concentration determination using such a method leads to inaccurate results because of the presence within the ionosphere of horizontal ionization gradients as well as because of the nonstationary character

Card 1/2

UDC: 550.388:629.198.3

ACC NR: AP6032856

above criterion is valid for defining the magnetosphere boundary, then the Luna-10 data indicate that the magnetosphere tail extends at least 390,000 km from the Earth. Orig. art. has: 4 figures.

SUB CODE: 03/ SUBM DATE: 11May66/ ORIG REF: 001/ OTH REF: 002/ ATO PRESS: 5099

2/2 *eyh*

E 059711-67 888-3/04/11/120 TT/68

ACC NR: AP6032856

SOURCE CODE: UR/0020/66/170/003/0570/0573

AUTHOR: Gringauz, K. I.; Bezrukikh, V. V.; Khokhlov, M. Z.; Masatov, L. S.;  
Remizov, A. P.

ORG: none

TITLE: Indications that the moon traverses the Earth's magnetosphere tail, according to data from charged-particle traps placed on the first artificial lunar satellite

SOURCE: AN SSSR. Doklady, v. 170, no. 3, 1966, 570-573

TOPIC TAGS: magnetosphere, lunar orbit, lunar satellite, *EARTH MAGNETIC FIELD*

ABSTRACT: Luna-10<sup>11</sup> carried two flat four-electrode charged-particle traps which monitored the flux intensity of electrons with energies exceeding 70 ev and positive ions with energies greater than a quantity determined by the second grid voltage, which was varied from 0 to +50 v once every two minutes. During the measurement sessions, the trajectory of the moon and its artificial satellite was such that it crossed the boundaries (as proposed by N. P. Sene) of the Earth's magnetosphere. During this time the measured difference of electron ( $E < e < 70$  ev) and positive ion ( $E > 50$  ev) flux was negative inside and positive outside the assumed boundary of the magnetosphere. Solar activity was normal during these measurements. At the

Card 1/2

UDC: 537.591

L 22189-66

ACC NR: AP6002857

the change in the formulation of discovery. On the basis of the decision of the Committee for the Affairs of Inventions and Discoveries at the Council of Ministers, SSSR, the new text is published. No. 27 (Application No. OT-2821 of 16 February 1963)7

SUB CODE: 04/ SUBM DATE: 16Feb63

Card 2/2    **net**

L 22189-66 EPF(n)-2/EWA(h)/EWT(1)/ETC(f)/EWG(m)/FCC IJP(c) AT/GW  
ACC NR: AP6002857 SOURCE CODE: UR/0286/65/000/024/0006/0006

AUTHOR: Gringauz, K. I.; Bezrukikh, V. V.; Ozerov, V. D.; Rybchinskiy, R. Ye.

ORG: none

TITLE: Plasma layer near the Earth

67  
B

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 6

TOPIC TAGS: charged particle, plasma sheath, plasma density, plasma charged particle, upper atmospheric radiation

ABSTRACT: This Author Certificate announces the establishment of the existence (at heights of approximately from 2000-20,000 kilometers above the surface of the earth) of a previously unknown region of the earth's plasma sheath. This sheath has an increased concentration of charged particles (in respect to the interplanetary gas) which decreases with height. The magnitude of the negative gradients of the charged particle concentrations in the upper part of this region consists of some hundreds of particles in  $1 \text{ cm}^3/1000 \text{ km}$  of height. The concentration near the upper boundary of the region does not exceed  $10^2 \text{ particles/cm}^3$ . Announcement of

Card 1/2

2

L 52770-65

ACCESSION NR: AT3009978

Invisible for cosmic ray counters; and 2) the electron currents in the outer radiation belt are weaker than currents capable of producing the threshold current of the traps. Consequently, the outer radiation belt remains invisible to the traps. Future experiments should aim at establishing the energy spectrum of electrons in the outermost (third) belt. Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: AA, SV

NO REF SOV: 011

OTHER: 004

29  
Card 272

1-52770-65 PAS-2/PD-1(1)/RS(-)/RS(v)/RQ(s)-2/RQ(v)/PCD/PRA(d)/RMO-4/  
EBC(t)/EWA(h) Pq-4/PQ-1/PQ-5/PQ-4/Pao-4/Pas-2/PA-4 IT/OM-2

ACCESSION NR: AT3009978

UR/3010/65/000/014/0110/0115

AUTHOR: Gringauz, K. I.

67  
041

TITLE: Ionosphere and plasma in space surrounding the Earth according to data from Soviet rocket studies

SOURCE: AN SSSR. Mashduvedomstvennyy geofizicheskii komitat. Geofizicheskii byulleten', no. 14, 1965, 110-115

TOPIC TAGS: radiation belt, cosmic radiation measurement, outer space plasma, cosmic rocket radiation probe, ionosphere, electron current

ABSTRACT: Reviewing, in historical order, the published results of rocket probes of the space around the Earth and the variations in the understanding of the radiation belts, the author covers the method, equipment, and data of the US two-stage rocket (1957), the first Soviet geophysical rocket (1958), the third Soviet artificial satellite (1958), Three Soviet lunar rockets (1959), Explorer VIII (1960), Explorer X (1961), Cosmos 2 (1962), and the Soviet interplanetary rocket Mars 1. The analysis of these data indicates that: 1) negative currents are created by electrons whose energies are above 200 eV but below the minimum energies needed for registration by the cosmic ray counters mounted on various rockets; consequently, the electron current zones near the geomagnetic equator discovered by traps remain

Card 1/2

L 54834-65

ACCESSION NR: AP5014800

form of an Archimedes spiral with a magnitude  $2 \times 10^{-5}$  oersteds. This estimate was based on a dynamic model which was constructed to explain comet tails. This model gave a concentration of  $10^3$  electrons per cc. Since 1959 several measurements with high altitude satellites and space probes have substantiated Parker's hypothesis. These include Luna-2 and 3 of the SSSR (1959), Venera-1 (1961) SSSR, Explorer-10 (1961 USA), and Mariner-2 (1962 USA). Data from these probes give interplanetary ion flow rates of about  $3 \times 10^8$   $\text{cm}^{-2} \text{sec}^{-1}$  and a magnetic field strength of  $10^{-5}$  oersted. Preliminary data from Explorer-18 support the original magnetic field vector orientation postulated by Parker. In general, these space probe measurements support Parker's theory, but the plasma concentration in interplanetary space has been shown to be two orders of magnitude less than previously supposed. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: ES, GP

NO REF SOV: 000

OTHER: 000

Card 2/2

L 54835-65 - EWT(1)/FS(a)/FSS-2/SPT(n)-2/EWG(v)/EWG(m)/FOE/EWA(d)/EPA(w)-2/EEC(t)/  
EWA(h) Pz-6/Po-4/Pd-1/Pab-10/Pe-5/Pq-4/Pac-4/Pae-2/PeB/Pi-4 IJP(c) TT/WW/AT/GW

ACCESSION NR: AP5014800

UR/0030/65/000/005/0060/0066  
533.9...1

AUTHOR: Gringauz, K. I. (Doctor of technical sciences)

99  
96  
B

TITLE: Near-terrestrial and interplanetary plasma 21

SOURCE: AN SSSR. Vestnik, no. 5, 1965, 60-66

TOPIC TAGS: plasma, solar wind, magnetic field, solar magnetic field, charged particle, lunar probe, interplanetary plasma

ABSTRACT: The presence of plasmas in the earth's vicinity as well as in interplanetary space is discussed by reviewing various theories and experimental data acquired since 1959 when the first Russian lunar probe was successfully launched. Various estimates of interplanetary plasmas prior to space probes were made from polarization of solar light, interactions with comet tails, cosmic ray variations, etc. Chapman of England postulated the existence of charged particles in interplanetary space as part of the solar corona in 1957 and U. Parker of the USA introduced the concept of the solar wind which consists of plasmas emitted from the sun and moving into the planetary space at approximately radial directions affected slightly by the magnetic field in the interplanetary space, estimated to be in the Card 1/2

L 01805-66

ACCESSION NR: AP5020829

of direct determination of positive-ion flow gave better results than  
the electrostatic analyzer on Mariner-2. Orig. art. has: 2  
figures. [TS]

ASSOCIATION: Radiotekhnicheskii institut Akademii nauk SSSR (Radio  
Engineering Institute, Academy of Sciences, SSSR) 55

SUBMITTED: 29Apr65

ENCL: 00

SUB CODE: AA, SV

NO REF SOV: 002

OTHER: 006

ATD PRESS: 4085

Card 3/3 *AD*

L 01805-66

ACCESSION NR: AP5020829

and a rectangular a-c voltage of 450 v with a modulating frequency of 1000 cps. Electron emission from the collector was suppressed by a grid with a 70-v potential with respect to the body of the satellite. An alternating component of the collector current, proportional to the magnitude of the positive-ion flow, was recorded by a resonance amplifier adjusted to the modulation frequency. The instrument was capable of sensing positive ion flow within the range of  $10^7$  to  $2.5 \times 10^9$   $\text{cm}^{-2}\text{sec}^{-1}$ . Recording of positive-ion flow of  $E > 70$  ev was aided by a d-c amplifier in the trap circuit. During the flight of Zond-2, the modulation trap was directed toward the Sun. When a deviation occurred, a correction was automatically made in the readings based on a study of the angular characteristics of the trap in the laboratory. On 7 Dec 1964, solar plasma flow was recorded at  $1.5 \times 10^9$   $\text{cm}^{-2}\text{sec}^{-1}$ , coinciding with the geomagnetic storm which occurred on the same date. This value was reached only during strong magnetic storms and tended to confirm the correlation between the  $K_p$  index and solar plasma flow. The use of particle traps capable

Card 2/3

L 01805-66 EWT(d)/FSS-2/EWT(1)/EEC(k)-2/FCC/EEC-4/EWA(h) TT/ASD/ON

ACCESSION NR: AP5020829

UR/0020/65/163/004/0873/0876

AUTHOR: Bezrukikh, V. V.; Gringauz, K. I.; Musatov, L. S.; Rybchinskiy, R. Ye.; Khokhlov, M. Z. 55 55 55

TITLE: Study of solar plasma flow by the Zond-2 interplanetary station 91 89 B

SOURCE: AN SSSR. Doklady, v. 163, no. 4, 1965, 873-876

TOPIC TAGS: solar radiation, plasma measurement, plasma flow, ion trap, particle detector/Zond 2 9m 12,55 12,55

ABSTRACT: An investigation of solar plasma flow was made to confirm the hypothesis that a correlation exists between the rate of solar plasma flow and the Kp index characterizing geomagnetic disturbances. Solar plasma flow was measured by Zond-2, equipped with modulation and integral particle traps. The latter were modified to measure electron and positive ion flux with energies in excess of 70 ev and 50 ev, respectively. The modulation trap, similar to the one used on Explorer-10, had a modulating grid supplied by two voltages: a d-c voltage assuming consecutively 8 values between 230 and 3200 v,

Card 1/3

L 00560-66

ACCESSION NR: AP5021006

ENCLOSURE: 01

0

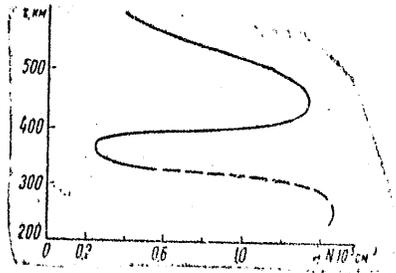


Fig. 1.

*SP*  
Card 3/3

L 00560-66  
 ACCESSION NR: AP5021006

A detailed analysis is made to show that the terms  $\{(\partial N / \partial y) \vartheta_0, (\partial N / \partial x)(r_0 + z_0 / \cos \varphi_0) \int (\partial N / \partial t) ds\}$  are not necessarily small in comparison to  $N_{0z} / \cos \varphi_0$ . A similar statement, with even more assurance, can be made about the unsteady term  $\int_0^{r_0} (\partial N / \partial t) ds$ .

To demonstrate this, an altitude versus density curve (see Fig. 1 on the Enclosure) is shown. Here the maximum in N is above the maximum region of the F-layer if one bases the data on the local dispersion method, neglecting the gradient terms (solid curve in Fig. 1). Radio-probe methods, on the other hand, support only the lower curve (dotted curve on Fig. 1). For this reason and because dispersion measurements far from the earth are unreliable, the authors do not agree with the local concentration data reported by previous authors (e.g., Ya. L. Al'pert. Geomagn. i aeronomiya, 1964, 4, No. 3, 479). Orig. art. has: 4 formulas and 2 figures.

ASSOCIATION: Radiotekhnicheskii institut, AN SSSR (Radio Technology Institute, AN SSSR)

SUBMITTED: 01Feb65

NO REF SOV: 013

Card 2/3

ENCL: 01

OTHER: 011

SUB CODE: GP, ES